In the Claims:

1. (Currently amended) A process for decontamination of microlithographic

projection exposure devices with UV light and a fluid, the microlithographic projection

exposure devices having optical elements, and at least some of said optical elements,

especially their surfaces, being cleanable, the microlithographic projection exposure

device having a first UV light source for projection exposure, comprising directing a

second UV light source onto at least a portion of said optical elements, especially their

surfaces, in intervals between exposures by said first UV light source.

2. (Original) The process according to claim 1, comprising employing a relatively

broad-band light source with a bandwidth of about 500 nm as said second UV light

source.

3. (Original) The process according to claim 1, further comprising producing a flow of

said fluid directed parallel to said surfaces of optical elements to be cleaned.

4. (Original) The process according to claim 3, further comprising branching off said

fluid from a normal operation flushing gas supply.

5. (Original) The process according to claim 3, further comprising introducing said

fluid by deflecting a fluid stream from fluid flow running parallel to an optical axis

during a projection exposure operation.

6. (Original) The process according to claim 5, further comprising producing said fluid

from fluid flow running parallel to said optical axis in normal operation by producing

cross-flows by inhomogeneous magnetic or electric fields.

7. (Original) The process according to claim 3, further comprising employing fluids

2

with different densities alternately for flushing.

Gerhard

(Z) 87027 P US

8. (Original) The process according to claim 4, further comprising producing a supply of flushing fluid from a normal operation fluid supply by increasing said supply and transition from a laminar flow into a turbulent flow.

9. (Original) Process according to claim 3, wherein the fluid comprises ozonic gas.

10. (Original) Process according to claim 3, wherein the fluid comprises oxygen gas.

11. (Original) A microlithographic projection exposure device comprising:

a first UV light source for the projection exposure, wherein said first light source comprises a DUV excimer laser,

at least a second UV light source for decontamination of optical elements that is switched in alternatively in intervals between exposures by said first UV light source, by which at least a portion of said optical elements is illuminated.

- 12. (Currently amended) The microlithographic projection exposure device according to claim 9 11, comprising at least one gas supply device for supply of flushing gas when said second UV light source is switched in.
- 13. (Currently amended) The microlithographic projection exposure device according to claim 10 12, further comprising radial flushing openings arranged radially of an optical axis in said gas supply device for supply of flushing gas, wherein a directed flow over surfaces of optical elements to be cleaned is produced by said radial flushing openings.
- 14. (Currently amended) The microlithographic projection exposure device according to claim 10 12, further comprising a gas supply device for normal operation provided as said gas supply device, a gas flow directed parallel to said optical axis being deflected in a direction toward surfaces of optical elements to be cleaned.

- 15.(Currently amended) The microlithographic projection exposure device according to claim 12 14, further comprising mechanical vanes, pivotable or foldable for deflection, for gas flow diversion.
- 16. (Currently amended) The microlithographic projection exposure device according to claim 12 14, further comprising inhomogeneous magnetic or electric fields for production of flows transverse of said optical axis.
- 17. (Currently amended) The microlithographic projection exposure device according to claim 12 14, further comprising a device for increasing gas flow for said flushing operation.
- 18. (Currently amended) The microlithographic projection exposure device according to claim 9 11, wherein said gas supply device contains an ozone source.
- 19. (Currently amended) The microlithographic projection exposure device according to claim 16 18, wherein said second UV light source is arranged in a focus of an ellipsoidal reflector, a light guide being arranged in another focus.
- 20. (Currently amended) The microlithographic projection exposure device according to claim 9 11, wherein said optical element comprises a rod-shaped light guide, arranged within a reflector together with said second UV light source.
- 21. (New) A process of a microlithographic projection exposure device comprising operating said projection exposure device comprising a plurality of optical elements with a first ultraviolet light source and effecting exposure, and
 - at intervals between exposing,
 - a cleaning operation comprising applying

a fluid and directing light from a second ultraviolet light source onto at least a portion of said plurality of optical elements.

22. (New) A process according to claim 21, wherein said optical elements comprise surfaces,

and the cleaning operation acting upon said surfaces.

23. (New) A process according to claim 21, wherein said optical elements subject to said cleaning operation comprises lenses.